City of Newport Beach
Water Quality/Coastal Tidelands Committee Minutes

Date: October 9, 2014
Time: 3:00 p.m.
Location: Newport Coast Conference Room, 2nd Floor, Bay E

1. **Welcome/Self Introductions**
   Committee Members present:
   Chairwoman/Council Member Nancy Gardner
   Mike Henn/Council Member
   Dennis Baker
   Carl Cassidy
   Lou Denger
   George Robertson
   Michael Melby

   Guests present:
   Jim Mosher, resident
   Nancy and Jack Skinner, S.P.O.N.
   Ray Hiemstra, CoastKeeper
   Monica Mazur, resident
   Darrel Ferguson, Surfrider Foundation
   Justin Cox, resident

   Staff present:
   Dave Kiff, City Manager
   George Murdoch, Utilities General Manager/Municipal Operations Co-Director
   Jim Auger, Operations Support Superintendent
   Shane Burckle, Water Conservation Coordinator
   Shari Rooks, Public Works Specialist
   John Burckle, Principal Building Inspector
   Paul Sobek, Principal Building Inspector
   Leonie Mulvihill, Assistant City Attorney

   The agenda for the Water Quality/Coastal Tidelands Committee was posted at 3:25 pm on September 29, 2014, in the binder located in the entrance of the Council Chambers at 100 Civic Center Drive.

2. **Approval of Previous Meeting's Minutes**
   The September 11th meeting minutes were approved.

3. **Old Business**
   a. **Bay and Ocean Bacteriological Test Results**
      Monica Mazur reviewed recent water quality test results within Newport Bay and along the ocean shoreline.

b. **2014 Committee Goals and Priorities**

- Catch basin cleaning topic and gray water standards will be discussed at this meeting.
- **Shane Burckle** told the committee we applied for a grant from the Orange County Transportation Authority (OCTA) to do some sewer diversions and/or Best Management Practices (BMPs) at the Arches Bridge. OCTA responded with questions regarding how we would define our scope of work and if sewer diversions were not feasible, they asked us to lay out what type BMPs would we put in place instead. We will be responding to the OCTA with our detailed models.
- Donna Ferguson has moved up north to Auburn but she is still interested in working with the City with the scope of work and her staff is still down in southern California.
- We have a Marine Protected Area (MPA) down at Crystal Cove.
- We have a Request for Proposal (RFP) out for an infiltration gallery and sand replenishment.
- **John Skinner** asked about the OCTA's level of involvement with the Orange County Sanitation District's (OCSD's) current sewer main project and whether we thought about approaching them to see about plugging into the OCSD line from the Arches to divert dry weather flows. **Shane Burckle** stated that OCTA wants to protect their route and until we had more detailed BMPs and presented them OCTA was remaining non-participatory.

ACTION: **Shane Burckle/John Kappeler** to contact OCTA to let them know the City is moving forward with the BMP process and keep them in the loop.

4. New Business

a. **Private Streets Catch Basin Cleaning Program – George Murdoch** gave the Committee the background on the City-maintained catch basins and storm drains.

- The City currently maintains 2,236 catch basins. There are 900 catch basins we don't own and maintain and we are not sure if these catch basins were being maintained by the respective communities.
- Bayshores is a good example of a community where we don't have infrastructure, we don't own the streets and we don't maintain their catch basins. Those catch basins do not connect to our storm drains and they drain directly into the bay.
- Newport Coast is an example of a community that we don't do any maintenance in and we don't get any reports from them.
- What options does the City have to ensure all catch basins are cleaned and maintained?
  1. Have City contractor maintain all non-maintained catch basins in the City for $35K per year. (Possible liability issues if during the cleaning process one of the community's lines sustained damage.)
  2. Require communities to have a connection permit that we could enforce.
  3. Create a municipal code or ordinance requiring communities to maintain their catch basins.
- **Nancy Gardner** asked if there were any catch basins we were currently maintaining that did not belong to us and **George Murdoch** said One Ford Road is an example of an area where we maintain the catch basins on the lines where we own the

infrastructure. Basically if the City owns the pipes in the catch basins then we maintain them. Big Canyon is another community where we don't own the streets, but we own the infrastructure and therefore we maintain the catch basins.

- **Dennis Baker** asked about the possibility for assessing a fee to cover the costs that the City would incur if we took over the expense of cleaning and maintaining all the City's catch basins.
- **Mike Henn** asked if the City has the right to enter private communities and **Leonie Mulvihill** said that we could take the position that under our Water Quality Program because these systems connect to our system it makes us responsible for controlling that discharge.
- **Nancy Gardner** suggested this issue be brought back at the next meeting to give the committee more time to discuss options before making a recommendation to Council.
- **Shane Burckle** asked if there might be some development agreements in place that address the responsibility of catch basins within a community and **Leonie Mulvihill** suggested that her office will investigate and bring the findings to the next meeting.
- **Nancy Gardner** asked committee members to contact **John Kappeler** before the next meeting if they thought of any other options.

b. Gray Water Systems – Seimone Jurjis gave a presentation on the requirements for implementing a gray water system. (See attached presentation).

- Gray water includes wastewater from bathtubs, showers, bathroom washbasins and clothes washers and **does not** include waste water from kitchen sinks or dishwashers. There are three types of Gray Water Systems
  1. Clothes Washer System
  2. Simple System (less than 250 gallons)
  3. Complex System (more than 250 gallons)
- The 'Clothes Washer System" is the simplest type of gray water system. No permit is required because the wastewater connects directly to the exterior and can be used to irrigate landscape and gardens.
- The less than 250 gallon or "simple" system requires a storage tank to collect wastewater, a diverter valve, a hose service connection, and anti-syphon valve, and may require a backflow valve for pumping uphill.
- The more than 250 gallon "complex" system requires a high level gray water storage tank, gray water supply lines, a backup supply line from the water main, gray water collection lines and filters and an underground storage tank with pump.
- Gray water systems can reduce potable water usage and reduce the water bill while reducing the demand on our water supply. However, the gray water may contain pathogens; ponding may be a breeding ground for mosquitos; chemicals may inhibit plant growth and minimal contact with gray water is recommended.

5. Public Comments on Non-Agenda Items

6. Topics for Future Agendas

(a) Bacteriological Dry-Weather Runoff Gutter Study (Phase III)
(b) Prop 84 ASBS Grant Program
(c) Senate Bill – SB 1447

(d) Eelgrass Program
(e) Trash Project for Storm Drains
(f) Harbor Commission Copper Report
(g) Orange County Coastal Regional Sediment Management Plan
(h) Sediment Quality Objectives (SQOs)
(i) NPDES Fifth Term Draft Permit
(j) Adopting a Natural Source Exclusion
(k) Banning Ranch

7. **Set Next Meeting Date**
The next meeting date was set for November 13, 2014 at 3 PM in the **Newport Coast Conference Room, Bay E, 2nd Floor.**

8. **Adjournment**
The meeting was adjourned at 3:50 pm.

Chairwoman / Nancy Gardner

Health Care Agency / Environmental Health Newport Bay Bacteriological Monitoring Program
Total Coliform (TC), Fecal Coliform (FC), Enterococcus (ENT) Colony Forming Units / 100 ml Sample

STATION	Location Description		6/2/14	6/9/14	6/16/14	6/23/14	6/30/14	7/7/14	7/14/14	7/21/14	7/28/14	8/4/14	8/11/14	8/18/14	8/25/14	9/2/14	9/8/14	9/15/14	9/23/14	9/29/14	10/6/14
NEWPORT BAY (Upper Bay)																					
BNB24	Newport Dunes - Middle	TC	>30	>50	<10	80	>80	>120	30	5600	70	>60	>30	70	>30	>80	30	30	20	60	>60
		FC	<10	10	<10	<10	<10	<10	<10	320	<10	20	<10	<10	10	60	<10	10	<10	10	90
		ENT	2	6	<2	<2	22	<2	2	4	4	2	<2	8	4	6	<2	2	2	20	40
BNB24	Newport Dunes - West	TC	<10	>120	<10	10	>70	>150	<10	100	>520	>50	>50	20	20	>260	30	>20	30	<10	80
		FC	10	50	<10	<10	50	<10	<10	20	10	10	<10	<10	<10	30	<10	<10	<10	<10	30
		ENT	<2	10	<2	<2	10	<2	6	<2	6	2	2	2	4	4	2	<2	4	20	6
BNB24	Newport Dunes - East	TC	>50	80	>10	>10	>70	>10	>30	>40	<200	>10	>80	<10	50	>60	>140	10	>40	<10	<10
		FC	30	<10	10	<10	10	10	10	<10	20	<10	30	<10	<10	70	40	<10	60	<10	<10
		ENT	236	4	<2	2	4	8	2	2	26	10	38	<2	10	4	52	4	42	<2	<2
BNB24	Newport Dunes - North	TC	8800	>20	>10	>60	>20	>50	<10	>10	>10	>40	>80	40	10	20	20	20	>30	20	20
		FC	440	<10	>10	50	<10	10	<10	<10	<10	<10	<10	<10	10	<10	10	30	<10	10	<10
		ENT	<2	8	2	10	<2	2	4	10	4	<2	44	2	2	<2	10	<2	10	8	4
BNB25	Vaughn's Launch	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	>10	NS	>10	NS	NS	NS	>10	NS	140
		FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	<10	NS	NS	NS	<10	NS	<10
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2	NS	40	NS	NS	NS	2	NS	2
BNB26	Ski Zone	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
BNB28	North Star Beach	TC	<10	>10	50	>20	>40	>70	20	20	10	<10	>95	<10	50	<10	50	>10	<10	<10	>95
		FC	<10	<10	10	<10	<10	30	10	<10	20	<10	20	<10	<10	<10	<10	<10	<10	<10	<10
		ENT	<2	<2	<2	4	4	2	4	10	6	<2	2	4	8	<2	4	36	2	<2	4
BNB30	De Anza	TC	>20	>10	10	100	>30	>10	50	>80	<10	>10	50	50	80	50	70	10	20	20	40
		FC	<10	<10	<10	10	10	<10	<10	30	<10	<10	<10	<10	<10	<10	10	<10	10	<10	<10
		ENT	4	4	<2	20	2	10	2	54	<2	4	4	<2	10	<2	4	4	<2	<2	<2
BNB05	Bayshore Beach	TC	>20	>40	30	<10	<10	40	10	10	40	50	10	<10	60	>330	20	>720	100	20	>240
		FC	<10	<10	<10	<10	20	<10	10	10	<10	10	<10	20	10	10	<10	10	30	10	<10
		ENT	2	2	2	<2	<2	<2	4	<2	<2	<2	<2	4	2	94	2	40	<2	<2	20
NEWPORT BAY TRIBUTARIES																					
CNBCD	San Diego Creek - Campus Dr.	TC	>700	>130	>30	<9	200	>1000	>910	>300	>290	>1300	>100	>270	>1500	>2800	>4000	>3400	>2300	>4200	>6200
		FC	<10	10	>10	<10	10	>50	10	>220	140	>230	>70	120	140	>420	>160	>260	320	190	290
		ENT	6	10	54	10	8	24	20	60	86	100	76	30	110	78	216	120	140	88	58
CNBSA	Santa Ana Delhi Channel	TC	33000	>1400	>3300	>5000	>6500	>920	>1800	>15000	>2900	>4800	>1300	>2400	>2700	>3600	>900	>146000	>39000	>4300	>2800
		FC	2000	230	>400	>640	1070	>270	>270	>370	710	>670	>160	210	250	>280	>380	9200	720	550	2200
		ENT	160	400	303	800	800	140	238	96	150	150	26	48	52	92	76	1000	78	40	1000
CNBBC	Big Canyon Creek	TC	>5200	>970	>5600	>4400	>7200	>7000	>5200	>6600	>5400	>8800	>5000	>4000	>6200	NS	NS	>15000	>7600	>4000	>40000
		FC	1040	<10	340	130	60	240	130	330	95	310	>340	320	800	NS	NS	1260	310	450	390
		ENT	1000	32	120	120	76	170	150	400	212	277	240	251	392	NS	NS	1000	600	98	1000
CNBND	Backbay Drive Pipe	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
NEWPORT SLOUGH			6/5/14																		
BNS01	Lancaster Street &	TC	>30	<10	>60	>110	>40	>50	10	>20	200	>200	270	10	>70	>510	<10	>20	>20	>10	NS
	61st Street	FC	<10	<10	<10	<10	<10	20	<10	<10	10	30	200	<10	<10	70	<10	20	<10	<10	NS
		ENT	4	2	2	26	2	4	6	<2	26	20	8	6	2	44	<2	<2	<2	26	NS
BNS02	Lancaster Street &	TC	<10	<10	<10	>340	>80	>70	60	>10	>70	>40	140	70	>20	>95	>110	>10	>7600	>10	NS
	Canal Street	FC	<10	<10	10	160	<10	20	<10	10	80	10	70	<10	<10	95	20	20	100	<10	NS
		ENT	<2	2	6	120	20	68	20	46	26	24	257	30	26	98	38	44	30	4	NS

NS - NOT SAMPLED
LA - LAB ACCIDENT
Cw/(o)C- CONFLUENT GROWTH WITH(OUT) COLIFORMS
TNTC - TOO NUMEROUS TO COUNT

SINGLE SAMPLE STANDARDS:
Total Coliforms - 10,000 organisms per 100 milliliters sample.
Fecal Coliforms - 400 organisms per 100 milliliters sample.
Enterococci - 104 organisms per 100 milliliters sample.
Fecal:Total Ratio - >1000 total coliforms if ratio exceeds 0.1.

New Data
Single Sample Standard Violation.
Long-term Posting Location.
Creek/Drain Sample Location.
Rain Influenced Data.

30-DAY LOG MEAN STANDARDS (of five weekly samples)
Total Coliforms - 1,000 organisms per 100 milliliters sample.
Fecal Coliforms - 200 organisms per 100 milliliters sample.
Enterococci - 35 organisms per 100 milliliters sample.

Health Care Agency / Environmental Health Newport Bay Bacteriological Monitoring Program
Total Coliform (TC), Fecal Coliform, Enterococcus (ENT) Colony Forming Units / 100 ml Sample

STATION	Location Description		6/2/14	6/9/14	6/16/14	6/23/14	6/30/14	7/7/14	7/14/14	7/21/14	7/28/14	8/4/14	8/11/14	8/18/14	8/25/14	9/2/14	9/8/14	9/15/14	9/23/14	9/29/14	10/6/14
NEWPORT BAY (Lower Bay)																					
BNB09	43rd Street Beach	TC	>10	<10	<10	>10	>95	>150	>240	>200	>340	>200	<10	60	20	20	>300	>2400	50	150	>60
		FC	<10	<10	<10	<10	<10	<10	20	<10	10	>10	<10	<10	<10	10	10	280	10	10	10
		ENT	<2	<2	<2	2	4	10	10	<2	2	20	<2	2	<2	<2	<2	10	4	2	2
BNB10	38th Street Beach	TC	>20	<10	<10	>20	>150	>50	>80	>20	>340	>190	>450	<10	80	>10	>40	>20	>60	10	390
		FC	<10	<10	<10	<10	80	<10	30	<10	>10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
		ENT	20	<2	<2	6	10	36	10	2	6	34	2	<2	<2	<2	6	4	4	<2	<2
BNB11	33rd Street Channel	TC	<10	<10	10	>290	>600	>340	>80	>50	>260	>6400	<10	120	10	<10	<10	>120	<10	10	10
		FC	<10	<10	<10	20	<10	30	<10	<10	>40	>360	<10	<10	<10	<10	<10	<10	<10	<10	10
		ENT	<2	2	<2	150	10	20	4	4	2	400	<2	<2	<2	<2	<2	40	<2	2	<2
BNB32	Lido Yacht Club Beach	TC	<10	190	>20	<10	>170	>95	<10	<10	>20	<10	>10	10	>10	30	110	<10	>30	70	20
		FC	<10	140	<10	<10	100	<10	<10	<10	10	<10	<10	10	<10	<10	40	<10	<10	30	<10
		ENT	4	20	34	2	<2	46	2	4	<2	8	82	<2	10	2	48	<2	6	<2	<2
BNB07	Via Genoa Beach	TC	<10	10	10	<10	>10	20	110	70	10	>10	<10	<10	<10	10	10	10	<10	<10	>80
		FC	<10	<10	<10	10	10	30	10	120	10	<10	20	<10	<10	10	10	<10	10	<10	80
		ENT	<2	<2	<2	<2	<2	26	2	4	2	<2	6	2	2	<2	6	10	<2	<2	20
BNB35	Newport Blvd. Bridge	TC	120	1270	>5400	20	>15000	>630	>9400	9000	30	>8600	30	<10	80	15000	>1150	19000	<10	<10	>1450
		FC	10	10	1080	<10	6600	170	5800	6800	10	1130	10	<10	<10	5800	270	880	<10	<10	60
		ENT	4	8	800	2	180	180	2400	4	6	140	<2	<2	2	34	52	46	<2	<2	22
BNB12	Rhine Channel	TC	<10	110	<200	<10	>200	>40	>260	30	30	>150	<10	80	20	>200	110	50	20	40	20
		FC	<10	<10	<10	<10	20	<10	30	80	10	30	<10	20	<10	<10	30	<10	20	<10	<10
		ENT	<2	<2	<2	<2	4	<2	4	<2	2	<2	2	6	<2	20	<2	<2	<2	<2	<2
BNB14	19th Street Beach	TC	10	<10	20	<10	40	10	<10	>30	70	10	>40	50	10	<10	NS	NS	NS	NS	NS
		FC	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	80	<10	10	<10	NS	NS	NS	NS	NS
		ENT	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	60	<2	6	<2	NS	NS	NS	NS	NS
BNB15	15th Street Beach	TC	150	10	<10	<10	40	>110	10	50	210	40	60	30	10	<10	>120	>40	60	30	10
		FC	<10	10	<10	<10	<10	30	<10	10	<10	<10	20	<10	<10	<10	10	<10	<10	<10	<10
		ENT	<2	<2	8	<2	20	2	2	2	66	<2	<2	<2	2	2	10	44	<2	<2	4
BNB17	10th Street Beach	TC	10	<10	<10	<10	>10	20	<10	>20	40	10	10	10	10	<10	30	>50	10	40	10
		FC	<10	<10	<10	<10	<10	<10	10	<10	10	<10	10	<10	10	<10	10	20	10	<10	<10
		ENT	<2	<2	<2	2	2	<2	<2	6	2	<2	<2	<2	<2	<2	2	6	<2	<2	<2
BNB18	Alvarado/ Bay Isle Beach	TC	<10	>10	>10	30	>30	<200	40	10	>20	10	<10	<10	<10	10	40	10	20	80	40
		FC	10	<10	20	30	20	<10	<10	<10	20	<10	10	<10	10	<10	<10	<10	<10	<10	<10
		ENT	2	4	2	20	<2	<2	<2	<2	<2	4	2	<2	<2	<2	2	<2	<2	6	<2
BNB22	N Street Beach	TC	<10	30	20	<10	30	>20	<10	<10	>10	10	<10	<10	<10	<10	10	<10	<10	10	20
		FC	<10	20	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	10	<10
		ENT	2	<2	4	<2	<2	<2	<2	2	4	2	<2	<2	<2	<2	<2	2	2	<2	4
BNB31	Garnet Avenue Beach	TC	>20	>20	>80	>40	>10	>30	>50	>160	10	120	>40	20	1300	<10	>70	30	>20	>250	>70
		FC	<10	10	>70	10	<10	10	30	80	<10	>70	30	10	<10	<10	50	30	20	60	20
		ENT	10	94	26	4	<2	4	8	10	4	120	42	40	10	6	20	4	6	8	20
BNB03	Ruby Avenue Beach	TC	>20	<10	10	<10	<10	>20	>70	20	>180	<10	40	20	10	<10	30	10	40	1120	80
		FC	<10	<10	30	<10	20	<10	30	10	20	<10	30	<10	<10	<10	20	20	10	550	30
		ENT	2	<2	4	<2	<2	<2	8	2	76	<2	6	<2	<2	<2	10	<2	2	4	10
BNB20	Sapphire Avenue Beach	TC	>20	>30	20	>20	>30	>30	>70	<10	<10	100	>10	80	70	80	20	30	30	320	>20
		FC	10	<10	10	<10	10	<10	60	<10	<10	40	<10	10	10	95	10	60	<10	30	20
		ENT	8	8	4	4	2	20	20	<2	4	6	8	4	8	20	20	8	2	4	20
BNB34	Grand Canal	TC	80	40	80	>30	>30	>110	230	50	240	>390	30	95	10	>60	10	70	10	80	20
		FC	20	<10	30	<10	50	40	80	<10	120	110	10	50	10	40	<10	20	10	40	<10
		ENT	10	<2	46	2	<2	52	8	2	6	317	<2	4	<2	<2	2	10	2	2	<2
BNB21	Abalone Avenue Beach	TC	10	80	>30	>40	10	>30	30	>380	10	<10	10	40	<10	10	>10	20	<10	10	>40
		FC	10	10	10	30	<10	>30	<10	30	<10	10	<10	<10	<10	<10	20	20	<10	<10	70
		ENT	<2	2	10	4	2	6	<2	8	2	<2	4	2	<2	<2	2	4	<2	2	6
BNB01	Park Avenue Beach	TC	10	80	10	10	>20	>240	20	40	>20	<10	10	<10	20	>20	20	>80	10	50	10
		FC	<10	<10	10	<10	<10	<10	<10	40	<10	<10	<10	<10	<10	<10	<10	<10	10	50	<10
		ENT	<2	2	<2	2	<2	10	<2	<2	4	<2	<2	<2	2	2	2	6	4	10	2
BNB02	Onyx Avenue Beach	TC	10	>40	>20	>20	30	>10	>230	10	>100	<10	>40	10	40	20	40	30	<10	70	>130
		FC	<10	10	<10	<10	10	10	<10	<10	10	10	<10	10	10	<10	<10	<10	<10	40	40
		ENT	10	<2	20	<2	2	<2	2	2	26	6	<2	2	6	<2	20	10	2	2	24
BNB29	Promontory Point Channel	TC	<10	<10	10	<10	>10	30	>40	20	10	>40	<10	70	10	<10	<10	<10	10	20	<10
		FC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
		ENT	<2	<2	<2	<2	2	<2	2	<2	8	<2	<2	2	<2	6	<2	<2	2	<2	<2
BNB33	Bayside Drive Beach	TC	>30	>990	>60	>100	>380	>30	>440	>20	>10	>170	>30	50	80	>130	>260	20	<10	>10	>30
		FC	30	50	10	30	240	<10	80	10	<10	160	10	<10	<10	50	<10	<10	<10	<10	70
		ENT	38	140	20	26	24	6	60	4	<2	60	8	6	24	10	10	10	<2	<2	28
BNB23	Rocky Point Beach	TC	>30	>10	>40	>10	>10	>20	<10	<10	<10	>10	20	<10	>60	>10	20	20	>160	30	<10
		FC	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	20	<10	<10	20	<10	10	100	10	<10
		ENT	<2	2	4	4	<2	8	6	2	2	8	4	<2	2	2	<2	4	8	2	4

OCSD Bacteriological [illegible] Monitoring Program
Total Coliform (TC), [illegible]ecal Coliform (FC),
Enterococcus (ENT) Colony Forming Units/100 ml Sample

DATE		5/14	5/20	5/21	5/27	5/28	6/3	6/4	6/10	6/11	6/17	6/18	6/24	6/25	7/1	7/2	7/8	7/9	7/15	7/16	7/22	7/23	7/29	7/30	8/5	8/6	8/12	8/13	8/19	8/20	8/26	8/27	9/2	9/3	9/9	9/10	9/16	9/17	9/23	9/24	9/30	10/1
Location/Tide																																									
Bolsa Chica	TC		<17		33		<17		17		<17		<17		17	<17		100		<17		17		17		67		<17		50		17		170		33		<17		17	
Beach	FC		17		17		<17		17		17		17		<17	17		<17		33		<17		17		120		17		17		17		50		17		<17		<17	
39N	ENT		2		18		<2		30		<2		8		4	4		4		2		14		8		68		20		38		6		92		56		<2		2	
Bolsa Chica	TC		<17		<17		<17		<17		<17		50		50	<17		83		17		130		17		170		<17		<17		17		4700		17		33		50	
Reserve	FC		33		<17		<17		<17		<17		<17		<17	17		50		33		<100		<17		200		<17		<17		17		3500		<17		17		<17	
33N	ENT		8		12		<2		6		8		12		12	4		12		8		114		<2		42		10		20		8		>400		10		36		6	
Bluffs	TC		<17		<17		<17		33		17		17		<17	<17		<17		<17		<17		<17		<17		<17		<17		<17		17		<17		<17		<17	
27N	FC		<17		17		<17		<17		17		17		<17	17		<17		<17		<17		<17		<17		<17		<17		17		<17		<17		<17		<17	
	ENT		2		4		2		8		8		28		<2	18		12		20		4		8		4		8		10		2		6		8		4		<2	
17th Street	TC		17		33		<17		100		33		17		<17	50		17		17		<17		50		17		<17		33		17		<17		<17		<17		<17	
21N	FC		<17		33		<17		83		<17		<17		<17	17		<17		17		<17		<17		<17		<17		33		<17		17		<17		33		<17	
	ENT		12		10		<2		30		18		30		12	4		4		18		8		2		14		10		10		6		14		4		6		<2	
Jacks Snack	TC		50		50		<17		83		17		83		17	17		33		<17		17		33		17		67		<17		100		67		<17		<17		<17	
Bar	FC		<17		50		<17		<17		<17		17		<17	33		17		17		17		17		17		83		<17		33		50		<17		33		<17	
15N	ENT		4		4		<2		40		<2		10		<2	8		10		4		2		2		14		24		<2		6		50		2		4		4	
Beach Blvd.	TC		17		33		17		83		<17		50		17	33		50		17		17		17		50		17		<17		<17		120		17		17		33	
12N	FC		17		33		<17		83		<17		33		33	33		50		<17		<17		33		50		<17		<17		17		100		<17		<17		17	
	ENT		2		16		2		46		<2		62		6	20		<2		2		<2		4		24		<2		4		12		60		2		16		18	
SCE Plant	TC	33	17	17	<17	33	<17	<17	50	170	<17	<17	50	130	<17	33	33	200	50	150	<17	<17	17	33	33	33	880	50	<17	200	17	33	17	50	17	50	17	<17	50	500	<17	33
9N	FC	<17	17	17	<17	17	<17	<17	33	400	<17	<17	33	120	<17	<17	<17	120	50	170	<17	<17	33	17	33	83	740	100	17	440	50	17	<17	50	83	17	<17	<17	67	440	<17	83
	ENT	12	2	6	12	8	2	<2	34	68	8	8	32	60	2	8	10	32	16	28	2	30	2	20	8	58	216	210	4	186	20	26	2	12	36	44	2	16	32	118	2	18
Magnolia	TC	83	<17	33	83	100	17	17	250	620	<17	17	170	67	33	50	67	100	130	33	500	17	33	100	33	220	100	150	<17	50	50	<17	17	<17	100	150	<17	<17	150	180	<17	67
Street	FC	67	<17	17	67	33	<17	<17	320	440	<17	<17	130	17	<17	33	17	50	83	33	350	17	33	120	67	220	120	120	<17	67	17	<17	<17	<17	130	200	<17	<17	83	180	17	67
6N	ENT	40	<2	20	50	20	<2	<2	54	200	<2	10	58	16	12	6	8	38	34	26	2	18	8	54	4	130	40	46	10	32	2	12	6	6	62	86	4	4	54	118	<2	6
Brookhurst	TC	1600	33	17	<17	17	17	33	<17	<17	17	33	33	17	67	33	17	<17	740	17	1100	200	83	100	400	250	150	100	170	270	180	17	17	<17	33	50	<17	<17	67	200	33	<17
3N	FC	920	<17	<17	17	17	17	<17	<17	33	<17	67	17	<17	250	17	<17	<17	620	<17	900	230	400	50	300	230	270	50	100	150	83	<17	33	<17	<17	17	17	<17	33	230	17	17
	ENT	>400	10	8	<2	6	6	6	14	2	4	62	12	10	30	2	4	<2	274	22	76	80	30	48	>400	136	28	24	26	312	24	54	10	<2	32	22	2	2	38	125	4	10
Santa Ana	TC	33	17	<17	<17	<17	33	17	<17	17	<17	17	<17	17	<17	280	<17	17	17	67	17	50	17	50	<17	<17	<17	50	<17	<17	<17	17	<17	<17	<17	270	<17	17	<17	600	17	<17
River Mouth	FC	<17	<17	33	<17	<17	17	33	<17	<17	<17	33	<17	<17	<17	100	<17	17	<17	150	33	100	17	17	17	<17	<17	17	17	<17	<17	33	100	<17	<17	200	<17	<17	<17	600	<17	17
0	ENT	40	<2	4	2	2	8	4	<2	18	<2	8	4	2	<2	52	<2	230	14	28	<2	30	8	6	4	<2	<2	52	<2	<2	2	4	18	<2	<2	74	<2	6	<2	126	<2	<2
Orange	TC	17		<17		<17		17		<17		67		<17		100		17		<17		120		<17		<17		<17		180		<17		<17		<17		<17		<17	
Street	FC	<17		<17		<17		<17		17		33		17		130		<17		<17		130		17		<17		<17		170		<17		<17		<17		<17		<17	
3S	ENT	2		4		2		6		4		28		6		<2		<2		<2		54		<2		<2		2		208		<2		2		2		<2		<2	
52nd/53rd	TC	<17		<17		<17		<17		<17		<17		17		<17		<17		<17		120		<17		<17		<17		17		<17		<17		<17		<17		<17	
Street	FC	<17		<17		<17		<17		<17		<17		<17		<17		<17		17		67		<17		<17		<17		67		<17		17		<17		<17		<17	
6S	ENT	<2		<2		4		2		4		2		4		<2		<2		<2		56		<2		<2		2		74		2		<2		<2		<2		2	
38th Street	TC	<17		<17		<17		<17		33		<17		17		<17		17		<17		17		<17		17		<17		<17		<17		<17		<17		<17		<17	
9S	FC	<17		<17		<17		<17		<17		<17		<17		<17		<17		<17		33		<17		<17		<17		17		<17		<17		<17		<17		<17	
	ENT	2		<2		2		<2		2		4		4		<2		42		2		42		<2		2		16		<2		2		<2		<2		<2		<2	
15th/16th	TC	<17		<17		17		<17		<17		17		<17		<17		<17		<17		50		<17		17		17		<17		<17		<17		<17		17		300	
Street	FC	<17		<17		<17		17		<17		<17		<17		<17		<17		<17		17		<17		17		50		<17		<17		<17		<17		<17		250	
15S	ENT	2		<2		2		2		2		2		<2		<2		<2		2		2		<2		4		118		2		4		<2		<2		<2		2		6	
Balboa Pier	TC	<17		<17		<17		67		<17		33		33		<17		<17		<17		<17		<17		17		<17		<17		>40		<17		<17		<17		<17	
21S	FC	<17		<17		<17		17		<17		<17		17		<17		<17		<17		<17		<17		17		<17		<17		17		<17		<17		<17		<17	
	ENT	<2		2		4		<2		16		<2		16		<2		<2		12		4		<2		76		10		<2		>400		2		2		<2		<2	
The Wedge	TC	<17		<17		<17		<17		50		<17		17		33		<17		<17		<17		<17		130		<17		<17		<17		<17		<17		17		<17	
27S	FC	<17		<17		<17		<17		<17		<17		17		<17		<17		<17		<17		<17		<17		<17		<17		17		<17		<17		17		<17	
	ENT	<2		2		4		16		2		<2		<2		<2		68		34		<2		2		2		<2		<2		2		<2		<2		2		2	
Corona Del	TC	33		<17		<17		>17		50		17		50		<17		33		17		17		<17		67		17		17		67		17		<17		17		<17	
Mar Beach	FC	33		<17		<17		<17		67		<17		33		<17		50		<17		17		<17		<17		17		17		<17		<17		17		<17		<17	
29S	ENT	12		2		8		<2		76		<2		24		4		38		10		<2		<2		<2		10		4		20		2		2		<2		<2	
Crystal Cove	TC	<17		<17		17		<17		<17		<17		<17		17		<17		<17		580		<17		1100		<17		33		<17		<17		<17		<17		<17	
39S	FC	<17		<17		<17		<17		<17		<17		<17		<17		<17		33		370		<17		1000		<17		<17		<17		<17		<17		<17		<17	
	ENT	<2		6		2		<2		6		2		2		<2		<2		<2		<2		<2		22		<2		4		4		<2		<2		2		12		<2	

SPRING TIDES
NEW DATA
SINGLE SAMPLE STANDARD VIOLATION

N/S	NO SAMPLE / NO DATA
CWOS	CONFULENT GROWTH WITHOUT SHEEN
CWS	CONFULENT GROWTH WITH SHEEN
CWB	CONFULENT GROWTH WITH BLUE (FECAL INDICATOR)

Gray Water Presentation

Water Quality / Coastal Tidelands Committee Meeting
October 9, 2014

Gray Water

- DEF: untreated wastewater that has not been contaminated by any toilet discharge, infectious, contaminated, or unhealthy bodily wastes.
- Gray Water includes waste water from bathtubs, showers, bathroom washbasins, and clothes washers.
- Does Not Include: kitchen sinks or dishwasher.

Treated vs. Non Treated

Non Treated – Source	Treated – Source
Clothes Washer	Swimming Pool Backwash
Shower	Air Conditioner Condensate
Wash Basin	Rain Water
Bath Tub	Industrial Process Water
	Manually Treated with Chlorine

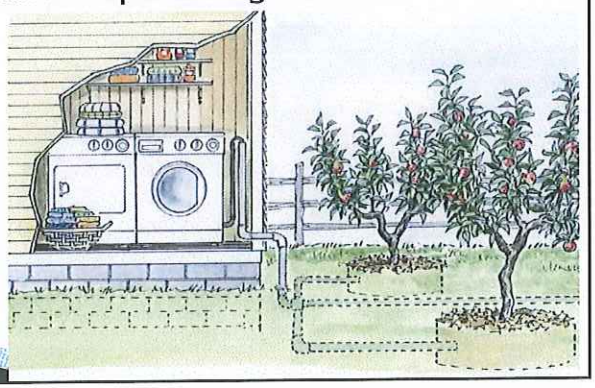
Non Treated – Use	Treated – Use
	Water Closets (Toilets)
Subsurface Soil Irrigation	Urinals
	Trap Primers
	Subsurface Soil Irrigation

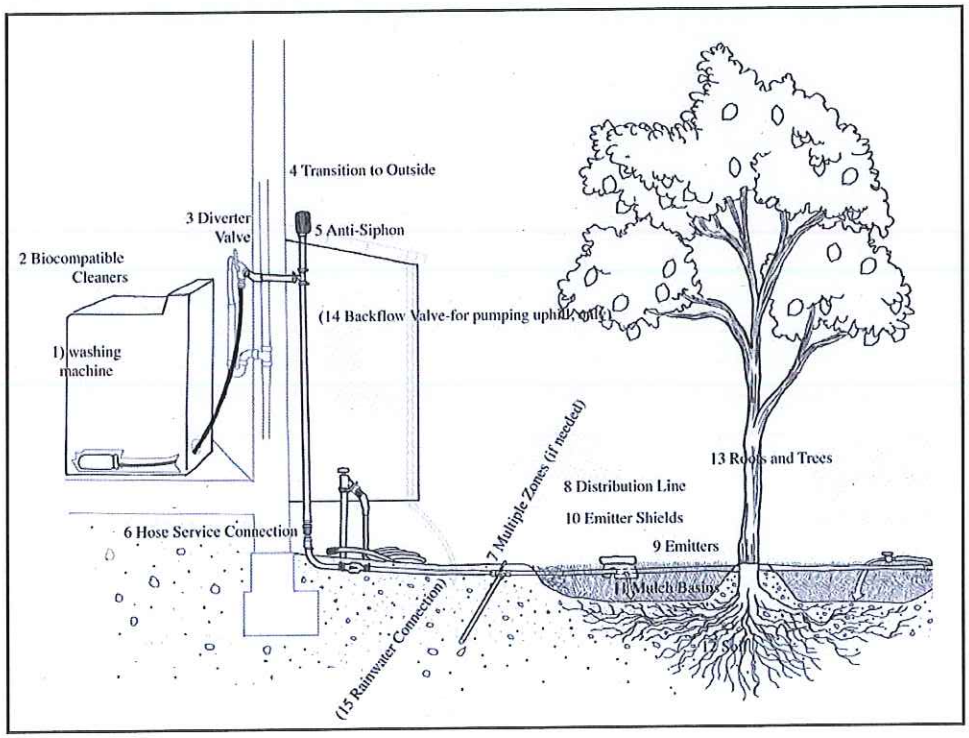
Types of Systems

- Clothes Washer System
- Simple System (less than 250 gallons)
- Complex System (more than 250 gallons)

Clothes Washer System

- Simplest type of gray water system.
- No Permit is Required.
- Waste connects directly to the exterior.
- Used to irrigate landscape and gardens.



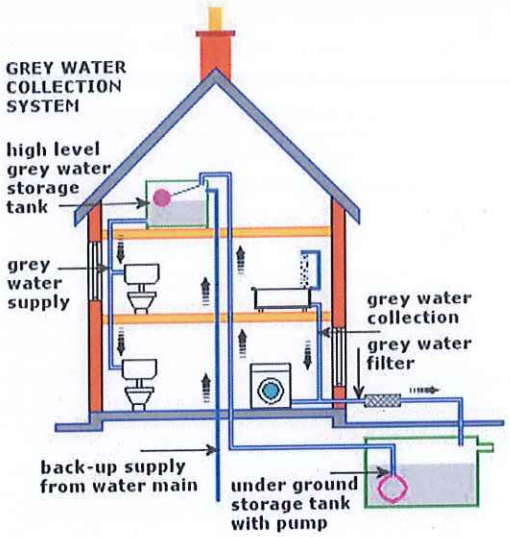


Soaps and Detergents to Consider

- Detergent is Biodegradable and Non-Toxic
- Free from salt (sodium) and boron (borax)
- Free from Chlorine Bleach
- pH Balance

Simple System (<250 Gallons)

Complex System (>250 Gallons)



Benefits

- Reduce Water Bill
- Reduce Potable Water Usage
- Reduces Demand and water supply

Considerations

- May Contain Pathogens
- Ponding may be a breeding ground for mosquitos
- Chemicals Inhibit Plant Growth
- Minimal contact with gray water is recommended

CITY OF NEWPORT BEACH

COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING DIVISION
100 Civic Center Drive | P.O. Box 1768 | Newport Beach, CA 92658-8915
www.newportbeachca.gov | (949) 644-3200

GRAY WATER
CLOTHES WASHER SYSTEM

A. GRAY WATER SYSTEMS

Under State regulations, gray water is defined as untreated wastewater that has not been contaminated by toilet waste or unhealthy bodily wastes. Gray water includes wastewater from bathtubs, showers bathroom washbasins, cloths washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers.

A gray water system uses gray water for subsurface irrigation and may include tanks, valves, filters, pumps or other appurtenances along with piping and receiving landscape. Gray water shall not be used in spray irrigation and shall not be allowed to pond, runoff or be discharged directly into reach any storm water system or any surface body of water. Additionally, gray water shall not be used to irrigate root crops or edible parts that touch the soil.

B. PERMIT REQUIRED

A plumbing permit is required to be obtained from the Building Division prior to installation or alteration of any gray water system. In order to approve plans and issue a permit for gray water plan review is required.

C. EXEMPTION FROM A PERMIT

A permit is not required for a gray water system in one or two-family dwelling that is supplied by only a clothes-washer system provided that system does not require cutting of the existing plumbing piping and provided the following requirements are met:

California Plumbing Code Section 1602.1.1 addresses Clothes Washer System. A clothes washer system in compliance with all of the following is exempt from the construction permit specified in Section 1.8.4 and may be installed or altered without a construction permit.

1. Notification shall be provided to the Building Division regarding the proposed location and installation of a gray water irrigation or disposal system.

2. The design shall allow the user to direct the flow to the irrigation or disposal field or the building sewer. The direction control of the gray water shall be clearly labeled and readily accessible to the user.

3. The installation, change, alteration or repair of the system does not include a potable water connection or a pump and does not affect other building, plumbing, electrical or mechanical components including structural features, egress, fire-life safety, sanitation, potable water supply piping or accessibility.

4. The gray water shall be contained on the site where it is generated.

5. Gray water shall be directed to and contained within an irrigation or disposal field.

6. Ponding or runoff is prohibited and shall be considered a nuisance.

7. Gray water may be released above the ground surface provided at least (2) inches (51 mm) of mulch, rock, or soil, or a solid shield covers the release point. Other methods which provide equivalent separation are also acceptable.

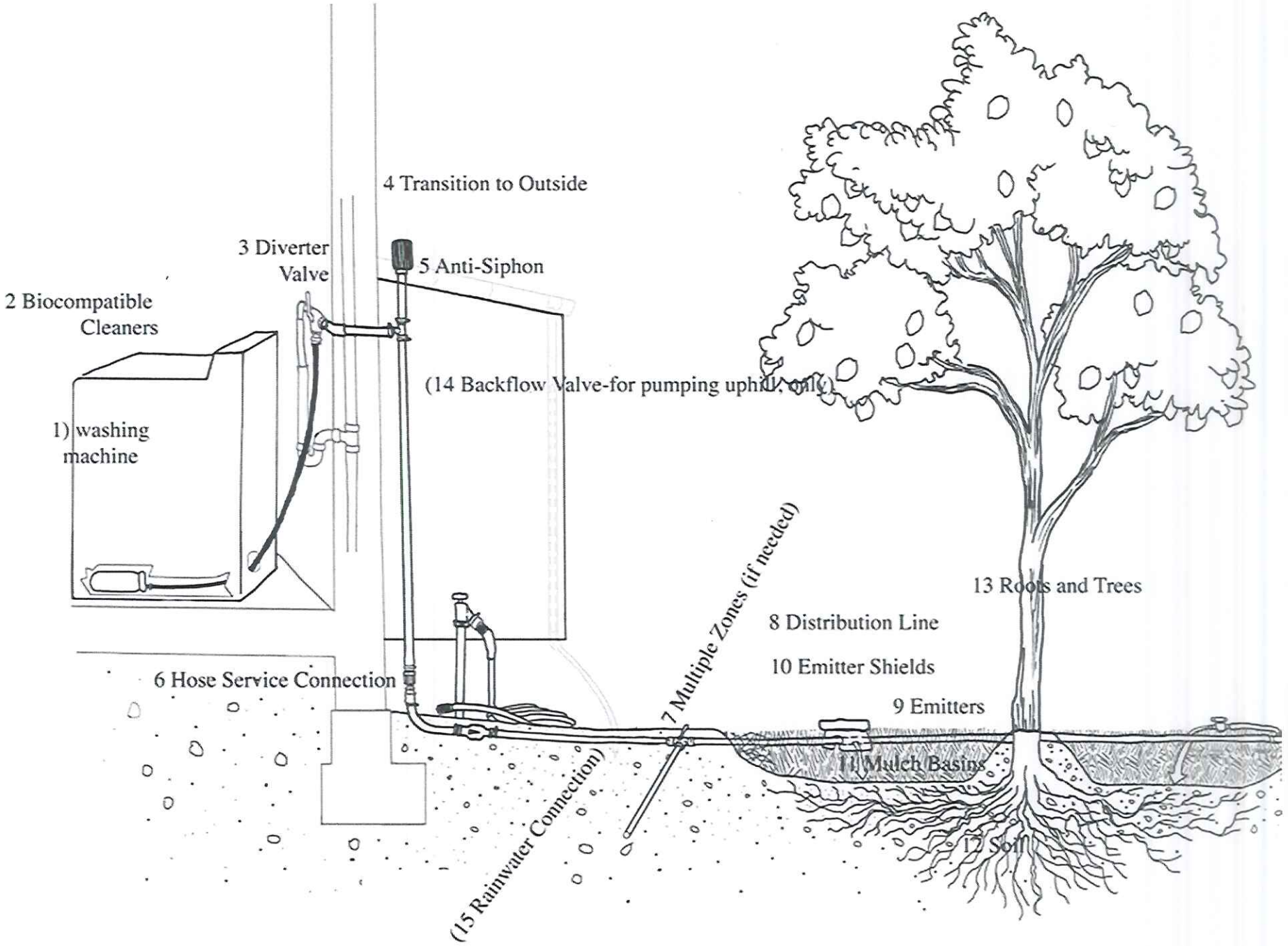
8. Gray water systems shall be designed to minimize contact with humans and domestic pets.

9. Water used to wash diapers or similarly soiled or infectious garments shall not be used and shall be diverted to the building sewer.

10. Gray water shall not contain hazardous chemicals derived from activities such as cleaning car parts, washing greasy or oily rags, or disposing of waste solutions from home photo labs or similar hobbyist or home occupational activities.

11. Exemption from construction permit requirements of this code shall not be deemed to grant authorization for any gray water system to be installed in a manner that violates other provisions of this code or any other laws or ordinances of the City.

12. An operation and maintenance manual shall be provided. Directions shall indicate the manual is to remain with the building throughout the life of the system and indicate that upon change of ownership or occupancy.


4 Transition to Outside
3 Diverter Valve
5 Anti-Siphon
2 Biocompatible Cleaners
(14 Backflow Valve-for pumping uphill only)
1) washing machine
13 Roots and Trees
8 Distribution Line
10 Emitter Shields
9 Emitters
7 Multiple Zones (if needed)
6 Hose Service Connection
11 Mulch Basins
12 Soil
(15 Rainwater Connection)

CITY OF NEWPORT BEACH

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GRAY WATER SYSTEMS
FREQUENTLY ASKED QUESTIONS

1. What is Gray Water?

Gray water is untreated wastewater that has not been contaminated by any toilet discharge. Gray water includes wastewater from bathtubs, showers, bathroom sinks, clothes washing machines, and laundry sinks. It does not include wastewater from kitchen sinks, dishwashers, photo lab sinks or laundry water from soiled diapers.

2. What is a Gray Water System?

Gray water systems are onsite wastewater systems that use gray water for subsurface landscape irrigation through the use of mulch basins, disposal trenches, or subsurface drip irrigation fields.

3. Are there regulations for the use of Gray Water?

The regulations for the design, construction and use of gray water systems can be found in Chapter 16 of the California Plumbing Code (plumbing code).

4. Who regulates the use of Gray Water in the City of Newport Beach?

The City of Newport Beach, Building Division, regulates gray water systems in the City.

5. What types of Gray Water Systems are there?

There are three types:

- Clothes Washer System – No permit required
- Simple System (less than 250 gallons per day) – Permit required
- Complex System (more than 250 gallons per day) – Permit required

6. What is a clothes washer system?

A clothes washer system is a gray water system that collects waste water from a washing machine and distributes it to your yard for subsurface irrigation of landscape plants. Clothes washer systems do not receive waste water from any other source. There is no requirement for a construction permit for this type of system.

7. Can I allow my Gray Water to discharge to the ground surface?

Due to the potential for high levels of bacteria and viruses in gray water it must be used in a way that eliminates potential human contact or the creation of nuisances. The regulations for gray water systems allows for subsurface irrigation only, although gray water can be discharged to the ground surface in a mulch basin as long as it remains covered with at least two inches of mulch, rock, or soil.

8. Can I use Gray Water for other purposes such as flushing toilets?

The plumbing code allows gray water to be used for flushing toilets but the gray water must meet the same regulations in place for the use of recycled water with respect to treatment, permitting, inspection, and cross connection control.

9. Do I need a permit to install a Gray Water System?

Permits are not required for gray water systems that collect from a clothes washer only, where no pumps are used and no modifications to the plumbing system are required. The system must still meet the design and construction standards found in the plumbing code regulations. All other gray water systems require a construction permit. Plans for gray water systems must be submitted to Building Division for review and approval of the gray water design. Once the design is approved, a construction permit must be obtained to install the gray water system and allow for inspection by the City.

10. Do I need to contact any other agencies for the installation of a Gray Water System?

Yes, you will need to contact the City Building Division, (949) 644-3200 to discuss plumbing, venting and electrical requirements as needed for either new construction or the retrofit of an existing structure where a gray water system is proposed.

11. What kind of plants can I irrigate with Gray Water?

Gray water can be used to irrigate fruit trees, ornamental trees, shrubs, groundcover and lawns. Gray water should not be used in vegetable gardens where the food is a root crop or touches the ground surface. Be aware that soaps and detergents can contain a variety of chemicals to aid in cleaning that may be harmful to your plants. Please contact your local landscape specialist for more information.